

AMENDMENTS TO THE SPECIFICATION

The specific changes to the amended specification are shown by double brackets for any deletions and underlining for any insertions.

Please amend the paragraph on page 1, line 4 as follows:

This application is a continuation[[-in-part]] of U.S. application Ser. No. 09/704,276, now U.S. Patent No. 6,736,791, filed Nov. 1, 2000, which is a continuation-in-part of U.S. patent application Ser. No. [[9/549,350]]09/549,350, now U.S. Patent No. 6,638,239, filed Apr. 14, 2000, and entitled "Apparatus and Method for Treating Glaucoma," the entire contents of which are incorporated herein by reference.

Please add the following paragraph after the paragraph ending on page 8, line 26, which discusses Figure 3:

FIG. 3A is a schematic view of the glaucoma device having plural lumens.

Please amend the paragraph on page 11, beginning on page 11, line 22, as follows:

FIG. 3 shows an embodiment of the glaucoma device 31 according to the principles of the invention. The device may comprise a biocompatible material, such as medical grade silicone, e.g., [[Silastic™]]SILASTIC®, available from Dow Corning Corporation of Midland, Mich.; or polyurethane, e.g., [[Pellethane™]]PELLETHANE®, also available from Dow Corning Corporation.

Please amend the paragraph beginning on page 10, line 15, as follows:

One aspect of the invention includes a method for increasing aqueous humor outflow in an eye of a patient, to reduce the intraocular pressure therein. The method comprises bypassing the trabecular meshwork 21. The device 31 may be elongate or of other appropriate shape, size, or configuration, as will be evident to those of skill in the art. In one embodiment, illustrated in FIG. 3, the device has an inlet section 2 with an inlet opening 3, a middle section 4, and an outlet section 9. There is also at least one lumen inside at least one of the sections for transmitting aqueous humor. The inlet section is typically positioned at an anterior chamber 20 of the eye and

the outlet section 9 is preferably positioned at about an exterior surface of the trabecular meshwork 21. The outlet section 9 is, in some embodiments, substantially perpendicular to the middle section 4[a]. "Substantially perpendicular," as used herein, is defined as subtending an angle between the long axes of the sections (e.g., the outlet section 9 and middle section 4) of between about 30 degrees and about 150 degrees. An alternate embodiment having plural lumens, with plural openings 3B, is depicted in Figure 3A.

Please amend the paragraph beginning on page 10, line 28, as follows:

The middle section 4[A] is advantageously placed across the trabecular meshwork 21 through a slit or opening. This opening can be created by laser, a knife, or other surgical cutting instrument. The opening may advantageously be substantially horizontal, i.e., extending longitudinally in the same direction as the circumference of the limbus 15. Other opening directions may also be used, such as horizontal or at any angle that is appropriate for inserting the glaucoma device through the trabecular meshwork 21 and into Schlemm's canal or another outflow pathway, as will be apparent to those of skill in the art. The middle section 4[A] may be semi-flexible and/or adjustable in position relative to the inlet section 2 and/or outlet section 9, further adapting the device for simple and safe glaucoma implantation. Furthermore, the outlet section 9 may be positioned into fluid collection channels of the natural outflow pathways. Such natural outflow pathways include Schlemm's canal 22, aqueous collector channels, aqueous veins, and episcleral veins. The outlet section 9 may be positioned into fluid collection channels up to at least the level of the aqueous veins, with the device inserted in a retrograde or antegrade fashion.

Please amend the paragraph beginning on page 13, line 14, as follows:

FIG. 4 shows another embodiment of the glaucoma device according to principles of the present invention. The device 31A comprises an inlet section 2A, a middle section 4A, and an outlet section 9A. The outlet section 9A may have a first outlet end 6A and a second, opposite outlet end 5A. The device further comprises at least one lumen inside the glaucoma device 31 A throughout one or more of the three sections 2A, 4A, 9A for transmitting aqueous humor starting from the inlet opening 3A. A curved and/or flexible outlet section 9A is used for positioning the

Appl. No. : 10/824,052
Filed : April 14, 2004

outlet section 9A inside one of the existing outflow pathways. The outlet section 9A may comprise an elongated trough 7A or groove for transmitting, or venting, aqueous humor. The elongated trough is connected to and in communication with the at least one lumen inside the glaucoma device as shown in FIG. 4. An optional ridge 8A at the junction of the inlet section 2A and the middle section 4A is provided for stabilization purposes.

Please amend the abstract as follows:

A glaucoma treatment device for directing the flow of aqueous humor and bypassing trabecular meshwork is shown[[disclosed]]. The device [[comprises]]includes an inlet section, an outlet section, a middle section, and at least one lumen for transmitting aqueous humor within the glaucoma device. The lumen extends through at least one of the sections, and the outlet section is substantially perpendicular to the middle section and fits within a conduit of aqueous humor outflow in the eye.